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SPECIAL REPORT

Business Investment and the U.S. Tax Code

by Margo Thorning*

There is increasing evidence that the Tax Reform Act of 1986 (TRA) may well have had a negative impact on the growth of U.S. capital spending. Yet in recent months, a report by Citizens for Tax Justice (CTJ) has attempted to make the case that U.S. investment, especially investment in producers' durable equipment, has "boomed" in spite of the fact that TRA reduced or eliminated several provisions of the tax code that encouraged business investment.[1]

The CTJ study, which focuses on the increase in effective tax rates paid by 250 corporations and calls for even higher corporate taxes, also misses the relevant issue facing tax policymakers. Policymakers today are increasingly concerned that U.S. corporations in all sectors of the economy may not be up to the challenge of competing in the U.S. and world markets. New tax reform initiatives should help reduce the high cost of capital for U.S. business and encourage productive investment of all types rather than impose still higher corporate taxes, as advocated by Citizens for Tax Justice.

The Truth about Business Investment Growth

A recent report by Citizens for Tax Justice (CTJ) states erroneously that "in the years following the passage of the 1981 tax act up to the passage of the 1986 tax reform bill, total real business fixed investment rose at the meager rate of 2.1 percent a year." The CTJ report goes on to say that "in the two years since the passage of tax reform, business investment has risen at a rate of 6.1 percent per year."

The CTJ analysis is erroneous and misleading for three reasons. First, CTJ has made a computational error in its estimate of real pre-TRA business investment growth by analyzing the wrong time period. CTJ's estimate of real, non-residential fixed investment (NRFI) growth in the pre-TRA years *includes data for the year 1986*, an obvious error since the investment tax credit was eliminated for assets placed in service after December 31, 1985. Additional evidence that 1986 was the turning point for capital cost recovery is provided by the fact that taxpayers had the option of using the new, more rapid depreciation schedules for assets placed in service after July 31, 1986. In fact, when analyzed correctly, the annualized growth rate of NRFI rises to 3.5 percent from 1981 to 1985, the appropriate time period for pre-tax-reform analysis.

Second, CTJ apparently ignored readily available investment spending data for the 1986-1989 period. Including the additional data for the first three quarters of 1989 shows that the NRFI growth rate has averaged *only 4.2 percent* in the 1986–1989, period. Thus, the appropriate comparison is between the annual growth rate in pre-tax-reform (1981–1985) NRFI spending—3.5 percent—and post-TRA (1986–1989,) spending growth—4.2 percent—*not 2.1 and 6.1 percent*, as CTJ states.

Third, and most important, is the fact that CTJ disregards the investment spending impact of the severe 1981–1982 recession when comparing capital outlays in the pre- and post-TRA periods. Investment spending held up extremely well considering that the United States endured its most severe recession since the 1930s. The severity of the recession is indicated by the 1982 and 1983 unemployment rate of 9.5 percent, a figure unmatched since the depression of the 1930s.

In fact, investment spending since the passage of the 1986 Tax Reform Act has not been as buoyant as in the early part of the expansion that began

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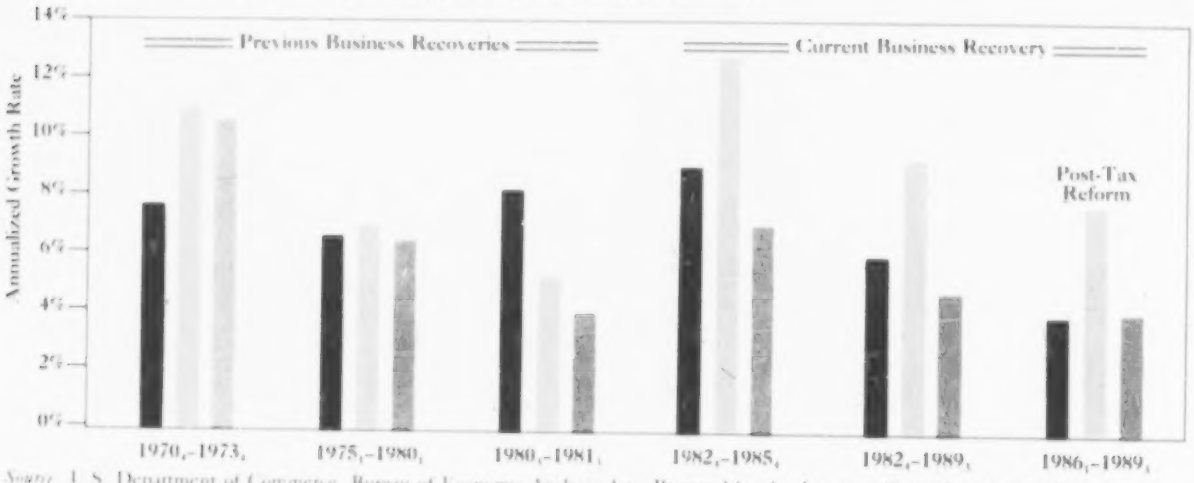
[1] Citizens for Tax Justice, "The Resurgence of Business Investment and Corporate Income Taxes," October 1989.

Chart 1: Investment Growth During Post-1970 Business Recoveries



Source: U.S. Department of Commerce, Bureau of Economic Analysis data. Prepared by the American Council for Capital Formation Center for Policy Research, December 1989.

Nonresidential Fixed Investment (Structures and Producers' Durable Equipment)

Producers' Durable Equipment

Producers' Durable Equipment Less Computers

in the fourth quarter of 1982 (see Chart 1). Nonresidential fixed investment, which includes both structures and producers' durable equipment (PDE), has grown at a rate of only 4.2 percent, compared to 9.4 percent in the 1982–1985 period (see Table 1). Similarly, since 1986 PDE has grown at only 7.9 percent, compared to 13.3 percent in the pre-tax-reform period. Since 1986, PDE less computers (mainframe and desktop) has grown at only 4.3 percent, while in the early and mid-1980s the rate was 7.4 percent.

The relatively slow growth of investment in the post-tax-reform period is even more surprising in view of the currently high level of capacity utilization in manufacturing, mining, and utilities. Capacity utilization averaged only 78.0 percent from the fourth quarter of 1982 (the beginning of the current business expansion) through the fourth quarter of 1985 (see Table 1). In the post-1986 period, utilization has averaged 81.7 percent. High levels of capacity utilization are usually associated with strong growth in business investment because firms seek to increase capacity during periods of strong demand.

Table 1: Growth in Real Investment and Capacity Utilization Levels During Recent Business Cycles

(percent)

Expansion Phase of Business Cycle[1] (Trough to Peak)	Capacity Utilization[2]	Nonresidential Fixed Investment[3]	Producers' Durable Equipment[3]	Producers' Durable Equipment Less Computers[3]
1970$_1$–1973$_1$	83.2	7.9	11.3	11.0
1975$_1$–1980$_1$	81.2	6.9	7.4	6.8
1980$_1$–1981$_1$	80.4	8.7	5.4	4.3
1982$_4$–1989$_3$[4]	80.0	5.9	9.6	5.0
Pre-Tax-Reform Pattern, 1982$_4$–1985$_4$	78.0	9.4	13.3	7.4
Post-Tax-Reform Pattern, 1986$_1$–1989$_3$	81.7	4.2	7.9	4.3

Source: Federal Reserve Board and U.S. Department of Commerce data. Prepared by the ACCF Center for Policy Research, December 1989.

[1] Business cycle turning points are those determined by the National Bureau of Economic Research.

[2] Average for manufacturing, mining, and utilities.

[3] Annualized growth rate.

[4] The peak in the business expansion which began in November 1982 has not yet occurred.

What Was the Goal of TRA?

CTJ states that the goal of tax reform was to "reduce the dramatic variation in effective rates" among companies which existed prior to tax reform. The report makes much of the fact that the dispersion in effec-

Table 2: Estimated Average Effective Tax Rate on Investment
(percent)

Type of Asset	Prior to TRA	Under TRA	Prior to TRA	Under TRA
Overall Tax Rate on Investment	33.3	36.5		
Owner-occupied housing	22.5	23.7		
	Corporate		Noncorporate	
Equipment	10.0	39.6	11.9	25.4
Structures:				
Nonresidential	34.4	43.1	27.8	31.4
Residential	49.5	52.5	38.2	40.6
Public utility	32.6	44.5	22.1	33.6
Inventories	48.8	45.8	33.0	30.5
Land:				
Nonresidential	50.6	47.8	36.1	33.8
Residential	53.9	51.4	41.4	39.5
Overall within Sector	38.7	44.4	33.2	33.9

Source: *Economic Report of the President*, January 1989 (Washington, D.C.: Government Printing Office), p. 92.

Table 3: Cost of Capital for Tangible and Intangible Assets
(percent)

Asset	Prior Law	Tax Reform Act of 1986	Percent Change from Prior Law
Equipment	5.23	7.25	38.62
Structures	8.47	8.08	4.61
Inventories	9.68	8.06	16.73
	10.04	8.42	16.14
Average for All Tangible Assets	7.52	7.92	5.32
Advertising	4.50	4.50	0.0
R&D Capital	4.50	4.50	0.0
Average for Intangible Assets	4.50	4.50	0.0
Average for All Capital	7.19	7.53	4.73

Source: Don Fullerton and Andrew B. Lyon, "Tax Neutrality and Intangible Capital," National Bureau of Economic Research Working Paper 2430, 1987.

tive rates among the 250 firms in the CTJ sample has lessened since tax reform. In fact, the stated goal of tax reform was "to make the tax treatment of diverse economic activities more even"[2] rather than to equalize tax rates among companies. What in fact happened is best described in the 1989 *Economic Report of the President*. That report notes:

> Under TRA the average effective tax rate on capital increased. *This increase arises mainly because TRA was designed to finance the cut in the personal income tax burden with a rise in the corporate tax burden* [emphasis added]. Despite its reduction in the top statutory corporate tax rate from 46 to 34 percent, TRA's other provisions—such as elimination of the investment tax credit and changes in depreciation rules—offset the reduction in the tax rate and raised the cost of capital on average. Other things equal, the increase in the marginal effective tax rate on capital resulting from the new tax code will act to reduce investment.[3]

The congressional tax-writing committees were attempting to reduce the dispersion in taxes on different types of investment, a goal in which they were partially successful, at least with regard to investments in tangible assets. The average effective tax rate on investment within the corporate sector increased from 38.7 percent prior to tax reform to 44.4 percent after TRA's passage (see Table 2). TRA reduced the variance of effective tax rates on alternative investments by sharply increasing the effective tax rates on investment in equipment (from 10.0 to 39.6 percent) relative to the increase in the effective tax rates on structures, including owner-occupied housing. Effective tax rates on land and inventories have fallen as a result of TRA.

Viewed from a broader perspective, a comparison of the effective tax rate for tangible and intangible investment, TRA was *not* successful in equalizing the tax rates and the cost of capital for different types of

[2] Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986* (Washington, D.C.: Government Printing Office, 1987), p. 10.

[3] *Economic Report of the President*, January 1989 (Washington, D.C.: Government Printing Office, 1989), p. 92.

Table 4: U.S. International Ranking[a] of Effective Tax Rates on Investment in Equipment[b]

	Computer Equipment	Mining Equipment	Textile Equipment	Pulp & Paper Equipment	Electric Utility Equipment
Current U.S. Tax Rate	35.3%	37.4%	30.3%	30.3%	58.1%
Prior Law Tax Rate	19.3%	14.5%	10.2%	10.2%	52.1%
Pre-TRA Ranking	2nd	2nd	2nd	2nd	4th
Post-TRA Ranking	8th	9th	9th	9th	12th

Source: KPMG Peat Marwick

[a] The fifteen countries included in the international ranking are United States, Luxembourg, Hong Kong, Spain, Belgium, Canada, Denmark, Italy, United Kingdom, Japan, France, Switzerland, West Germany, South Korea, and Taiwan.

[b] The five types of equipment include those assigned five-, seven-, and twenty-year recovery periods under the Tax Reform Act of 1986. These examples are broadly representative of the majority of equipment used by U.S. industry. Computations assume a 4 percent real rate of return and 4 percent inflation.

investments. As a study by Dr. Don Fullerton of the University of Virginia and Dr. Andrew B. Lyon of the University of Maryland points out,[4] the cost of capital (which is linked closely to the effective tax rate) for equipment, which is a tangible asset, increased as a result of tax reform both in absolute terms and relative to intangible investment. The cost of capital for equipment (defined as the pretax rate of return required by the investor) rose from 5.23 percent under prior law to 7.25 percent under TRA, an increase of 38.6 percent (see Table 3). Thus the cost of capital for equipment is now 60 percent higher than that for intangible capital, rather than only 16 percent higher as under prior law. Capital costs for intangible assets such as R&D and advertising were unchanged because they are expensed (written off immediately) rather than capitalized (depreciated). Had the tax-writing committees not faced the necessity of "paying for" individual tax rate reductions with

Table 5: Saving and Investment as a Percent of Gross Domestic Product, 1973–1987

	United States	Canada	Japan	France	West Germany	United Kingdom
SAVING						
Net Saving[c]	5.0	9.2	18.6	9.0	10.5	5.9
Personal Saving[d]	5.7	7.5	12.9	8.3	8.1	4.7
Gross Saving (net saving plus consumption of fixed capital)[e]	17.7	20.7	31.9	21.2	22.4	17.7
INVESTMENT						
Gross Non-Residential Fixed Capital Formation	13.5	15.7	23.7	14.6	14.6	13.8
Gross Fixed Capital Formation	18.2	21.7	30.0	21.0	20.7	17.5

Source: Derived from National Accounts, Vol. II, 1973–1985 and 1975–1987, Organisation for Economic Co-operation and Development (OECD), 1987 and 1989 eds. Prepared by the American Council for Capital Formation Center for Policy Research, December 1989.

[c] The main components of the OECD definition of net saving are personal saving, business saving (undistributed corporate profits), and government saving (or dissaving). The OECD definition of net saving differs from that used in the National Income and Product Accounts published by the Department of Commerce primarily because of the treatment of government capital formation.

[d] Personal saving is comprised of household saving and private unincorporated enterprise.

[e] This percentage is for the years 1973–1986.

[f] The main components of the OECD definition of consumption of fixed capital are the capital consumption allowances (depreciation charges) for both the private and the government sector.

[4] Don Fullerton and Andrew B. Lyon, "Tax Neutrality and Intangible Capital," National Bureau of Economic Research Working Paper 2430, 1987.

corporate tax increases, they could have moved toward equalizing effective rates on alternative investments in tangible assets by *reducing* the rates on structures and inventories rather than by *increasing* the rate on equipment.

What Should Be the Goals of Tax Reform?

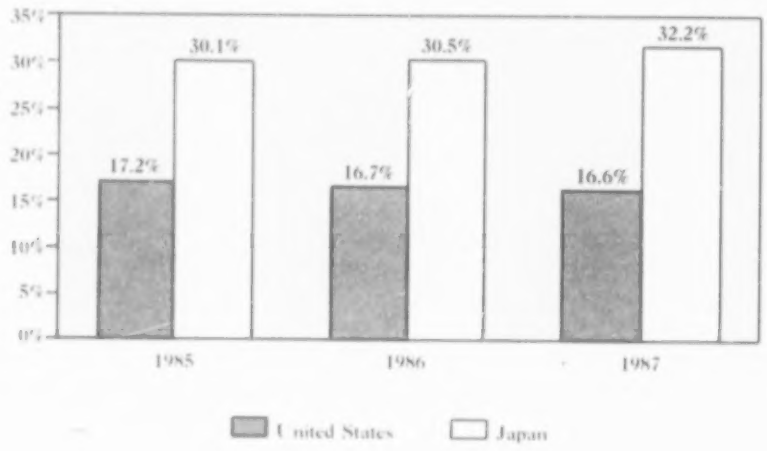
Future tax reform should move in the direction of enhancing individual and business saving and investment incentives, rather than raising corporate taxes, as CTJ advocates. For example, CTJ calls for the elimination of the accelerated cost recovery system and the use of straight-line depreciation. Such a move would put the U.S. capital cost recovery system at the bottom of the list among major industrial countries. The Tax Reform Act of 1986 was responsible for the U.S. dropping from second for most types of industrial equipment to the middle or below among fifteen industrialized countries (see Table 4).

Further corporate tax increases would make it even harder for the United States to increase the share of gross domestic product (GDP) devoted to saving and investment. From 1973 to 1987, saving and investment as a percent of GDP has been lower for the U.S. than for any of our major competitors with the exception of the United Kingdom (see Table 5).

Japan's lead in saving and investment is further highlighted by a comparison of saving and investment over the 1985–1987 period. Japan is investing an increasing share of its GNP—32.2 percent in 1987—while the U.S. is moving in the opposite direction—down to 16.6 percent in 1987 from 1985 (see Chart 2). Even more disturbing is the fact that Japan, whose GNP is roughly half that of the U.S., is investing more in absolute dollar amounts than is the United States (see Table 6). In 1987, Japan's total fixed investment equaled $767 billion, while the comparable figure for the U.S. was only $749 billion.

Such high levels of Japanese investment are not surprising given Japan's much lower capital costs. New research by Stanford University's Dr. John Shoven shows that for a typical piece of equipment financed with equity and with an assumed five-year life, the cost of capital was 10.4 percent in the U.S. in 1988 compared to Japan's 4.1 percent—a difference of 153 percent.[5] U.S. plants financed with equity face capital costs 147 percent higher than Japanese plants.

Chart 2: Fixed Investment in the United States and Japan as a Percent of GNP



Source: International Bank for Reconstruction and Development, *World Tables: 1988-89* (Baltimore and London: Johns Hopkins University Press, 1989). Prepared by the American Council for Capital Formation Center for Policy Research, December 1989.

Note: Fixed investment is defined as additions of new and imported durable goods.

Table 6: GNP Components for Japan and the U.S.
(billions of current U.S. dollars)

	Japan			United States		
	1985	1986	1987	1985	1986	1987
Gross National Product	1,331	1,966	2,385	4,015	4,240	4,527
Gross Fixed Investment	401	589	767	690	707	749
Gross National Saving	443	659	809	602	594	620

Source: International Bank for Reconstruction and Development, *World Tables: 1988-89* (Baltimore and London: Johns Hopkins University Press, 1989). Prepared by the American Council for Capital Formation Center for Policy Research, December 1989.

[5] John B. Shoven, "Consumption Taxes vs. Income Taxes for Deficit Reduction and Tax Restructuring," prepared for "Saving: The Challenge for the U.S. Economy," a symposium sponsored by the American Council for Capital Formation Center for Policy Research, October 1989.

Debt-financed investments in the United States also face substantially higher capital costs than in Japan.

Conclusions

Reports such as that by CTJ—which misuse economic data to support apparently predetermined conclusions and contain major computational errors[*]—do a disservice by shifting the focus from the goal that U.S. tax policy should be striving to achieve. It seems likely that increases in the effective tax rate and the cost of capital for equipment have depressed U.S. investment spending below what it would have been in the absence of TRA.

In the opinion of many tax policy experts, future tax code revisions should reduce the U.S. cost of capital in order to help U.S. firms compete both at home and abroad. Moving toward expensing for *all* types of investment (rather than just for R&D, advertising, and marketing), reducing the capital gains tax, integrating corporate and individual taxes, and substituting a broad-based tax on consumption for part of the corporate tax, all would be positive steps to reduce U.S. capital costs and encourage lagging U.S. investment.

[*] Examples of such errors include erroneous estimates of investment growth rates in the pre- and post-TRA time periods, and counting the sale of safe harbor leasing benefits or a tax reduction for both *buyers* and *sellers*.

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